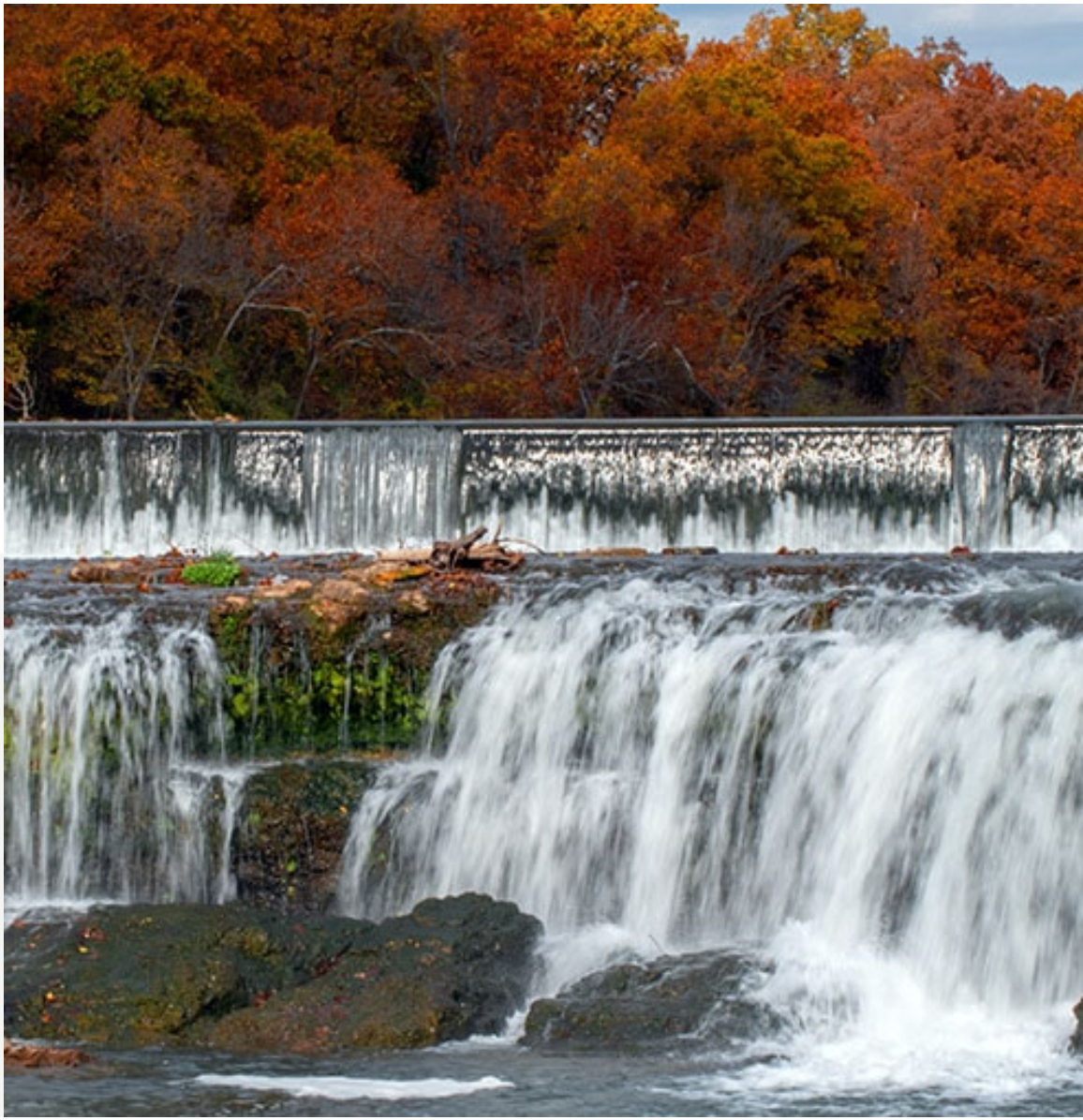
bakertilly

City of Joplin

Public Works Department
Management and Operations Assessment



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Project Objectives



- Identify opportunities for improvement and streamlined workflow, review current organizational structure to meet the Department's needs, and create recommendations for aligning the processes and organizational structure



- Review the American Public Works Association (APWA) accreditation requirements and document the City's progress towards meeting those standards



- Evaluate the division's organizational structure, staffing levels, and efficiency of staff roles and responsibilities.



- Compare the staffing levels and procedures to similar cities in the region.

Project Approach

PROJECT SCOPE

- Process Documentation &Evaluation
- Operational Analysis
- Organizational Assessment
- APWA Accreditation Assistance

City of Joplin Public Works Divisions	Reviewed in this Assessment
Engineering	Yes
Facilities	Yes
Infrastructure Maintenance	Yes
Wastewater Treatment	No
Airport	No
Solid Waste/ Recycling	No
Transit	No
Central Garage	No

ANALYZING DATA

- Information Request
- Interviews and Focus Groups
- Retirement Analysis
- Peer Benchmark Survey
- Best Practice Research

City of Joplin Ongoing Initiatives

The City of Joplin has current ongoing strategic initiatives as part of the City's 2021 Action Plan:

- **Central Square EAM System:** The City of Joplin proactively recognized the need for decision making driven by metrics and data. As part of this strategy, the City secured a new asset management and workorder software solution.
- **APWA Accreditation:** The City of Joplin has already mobilized the Public Works Department and initiated the policy and procedure documentation required for accreditation.
- **Organizational Alignment:** Focused staffing additions in strategic divisions to enhance service delivery. Four vacant positions throughout the department were filled during the course of this project.



Project Observations

Baker Tilly organized its observations into 4 key focus areas to provide the City of Joplin with a comprehensive evaluation of its Public Works Department.

- **APWA Accreditation:** To support the City's goal of achieving APWA accreditation, Baker Tilly reviewed the accreditation criteria from the 11th edition APWA manual and assessed the City's current documentation against these standards.
- **Peer Learning:** Baker Tilly conducted a benchmarking survey of 11 peer organizations to identify best practices and performance standards in key operational areas, including staffing, technology, resource allocation, and performance metrics.
- **Retirement Analysis:** A workforce analysis was conducted to evaluate potential retirements over the next five years.
- **Process Mapping:** Through interviews and departmental engagement, Baker Tilly identified 14 critical operational processes in need of review, ranging from work order management and capital project oversight to permitting and inventory management.

Collectively, these 4 assessment areas formed the foundation of Baker Tilly's observations and recommendations. The evaluation highlighted both strengths and improvement opportunities in Joplin's current public works operations, with a particular focus on policy alignment, process efficiency, organizational structure, and workforce sustainability.

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APWA Accreditation

- Baker Tilly compiled a list of APWA's accreditation criteria from the 11th edition manual
- Of the 40 chapters of practices outlined in the APWA manual, nine chapters are not applicable to the operations of the City of Joplin's Public Works Department.
- For the 31 chapters that the City is required to provide documentation on in order to receive APWA accreditation, Baker Tilly has compiled the City's existing documentation that complies with APWA requirements and mapped out the gaps between the City's existing documentation and what is needed for accreditation.
- As an additional deliverable, Baker Tilly will provide a full spreadsheet comparing the City's current policies and procedures against APWA requirements as well as a zip drive, organized by APWA chapter, of the existing information.

	Chapter Name	Documentation Required	City of Joplin Existing or Partial Documentation
1	Organization and Strategic Planning	7	6
2	Human Resource Management	36	22
3	Occupied Facilities	12	11
4	Finance	19	4
5	Risk Management and Legal Review	9	1
6	Communication	14	2
7	Information Technology and Telecommunications	12	
8	Emergency Management	16	1
9	Safety	10	1
10	Asset Management System	5	1
11	Infrastructure Planning	9	1
12	Building Code Enforcement	Not Applicable	
13	Engineering Management	19	1
14	Bid Process	6	1
15	Construction Management	14	
16	Right-of-Way Management	8	5
17	Utility Coordination	7	
18	Facilities Management	16	14
19	Equipment and Fleet management	Not Applicable	
20	Parks, Grounds, and Forestry	Not Applicable	
21	Solid Waste Management	5	1
22	Solid Waste Collection	7	
23	Solid Waste Recycling and Reuse	16	16
24	Solid Waste Disposal		
25	Street Maintenance	10	3
26	Street Cleaning	8	2
27	Snow and Ice Control	14	1
28	Stormwater and Flood Management	18	17
29	Vector Control	Not Applicable	
30	Drinking Water Distribution System	Not Applicable	
31	Water Treatment	Not Applicable	
32	Wastewater Collection and Conveyance	13	12
33	Wastewater Treatment and Disposal	13	13
34	Traffic Operations	17	14
35	Parking	10	6
36	Cemeteries	Not Applicable	
37	Airports	11	10
38	Transit Operations	24	4
39	Bridges	5	
40	Beach Management	Not Applicable	

Peer Benchmarking

Baker Tilly developed a benchmark survey to gather detailed operational information and identify best practices to enhance the City's operational efficiency. The peer benchmarking survey focused on key operational areas, including staffing, resource allocation, technology use, maintenance practices, and performance metrics.

Organizations	Population	Public Works Dept FTE
City of Joplin, MO	53,095	121
City of Chesterfield, MO	49,166	56
City of Lee's Summit, MO	104,184	95
City of Lenexa, KS	58,536	Not provided
City of Cedar Rapids, IA	135,958	263
City of Springfield, MO	170,188	269

Retirement Analysis

Baker Tilly conducted a retirement analysis for the Public Works Department to determine the number of employees eligible for retirement between 2025 and 2030. Our analysis indicates that roughly 50% of the department's workforce will become eligible for retirement by 2030.

Divisions	Number of Eligible Employees	Total Number of Division Employees	Percentage of Staff Eligible per Division
Airport	7	10	70%
Engineering	10	23	43%
Infrastructure Maintenance	15	37	41%
Transit	14	18	78%
Wastewater Treatment	15	33	45%
Grand Total	**61**	**121**	**50%**

* Our retirement analysis was pulled from January 2025 census data. The divisions above were combined to correspond with the organization charts within the report. A full table of the data and title-specific retirements will be provided to the client.

High Priority Recommendations

No.	Recommendation	Implementation Order
Process and Policy		
1	Review and Update City-Wide Standardized Operating Procedures (SOPs) and Polices	-
2	Potential Process Improvements Recommendation	-
3	Update Inventory Management Practices	-
4	Evaluate Alternative Leaf Pick Up Strategies	-
Technology		
5	Provide Crew Leads Mobile Field Devices	-
6	Create Implementation Plan for Central Square EAM and Work Order Management System	-
Staffing and Structure		
7	Hire a Fleet Manager and Move the Central Garage Division	2
8	Align Engineering and Operations Division Functions	5
9	Hire Engineering Manager	3
10	Develop a Workforce Development Plan	-
11	Formalize Crew Lead Positions	1
12	Hire a Facilities Manager and Centralize Facilities Management Functions	4
13	Hire a Public Works Management Analyst	-
14	Hire a GIS Specialist Position	-

Potential Process Improvements

Process Map	Recommended Improvement
Stakeholder complaints and public inquiries	Work with information technology to update listed phone numbers to reduce frustrations and incorrect forwarding. Additionally, streamline the process by making listing accurate to avoid transfers to the incorrect area (i.e., handling calls forwarded from Utility Billing in Finance).
Work order process assignment and logging	Standardize the record-keeping process for Sign and Traffic Signal Technicians by requiring all maintenance records to be added to OneDrive. Eliminate duplicated work by having field employees and/or their supervisor directly enter their worklogs into SeeClickFix.
Inventory management and purchasing • Project management – post bidding • Credit card purchases • Purchase order approval • New vendor • Invoicing receiving and processing • Consulting agreements • Construction contracts • Capital purchases • Supplies and materials	Currently, wet signatures are required, necessitating printing, signing, and uploading documents. The Department lacks the software for secure electronic signatures, such as DocuSign. While other City Departments have adopted this technology, it has not yet been implemented in Public Works. Standardize inventory management across the Garage, Streets/Sewers, Lights, and Engineering Divisions by implementing a unified system that does not rely on visual estimates. The invoicing processing and receiving approvals process can be done entirely through Navaline with no need for physical initialing by each approver in Public Works. For invoicing processing and receiving for capital projects, there have been updates and loosening of purchasing policies which can streamline this process to expedite the council approval process.
Construction bidding	Enhance accessibility by offering online access to public bid opening meetings. Implement secure electronic signature software, such as DocuSign, to eliminate the need for printing, signing, and uploading documents.
Special events permitting and coordination	Create a clear set of guidelines for citizens to determine the appropriate form for their event. Establish a shared special event tracker and note system between the Public Works and Police Department. Ensure other departments typically involved have access. Establish clear guidelines for invoice payment due dates and standardize the process across all events. Additionally, offer online payment options to improve efficiency and save citizens' time.

Potential Process Improvements Continued

Process Map	Recommended Improvement
Capital projects management/Project beautification	Provide Construction Inspectors with additional field devices to enable direct digital note-taking during site visits. Develop a standardized process for final documentation of record drawings and as-built plan specifications.
Permitting and plan review	Consolidate the review process by generating a single, compiled Letter of Comment (LOC) that includes input from all required Departments.
Recruitment with Human Resources Department	Implement an applicant tracking system to compile candidate data before sending it to the Hiring Supervisor. Delegate the task of contacting candidates and coordinating interviews with HR professionals or administrative personnel. This will allow Hiring Supervisors to focus on their primary responsibilities and improve the efficiency of the hiring process.
Streetlights, banners and sign maintenance	Develop a notification system that allows Liberty Utilities access to ensure the Department is informed upon the resolution of work orders. This will allow for timely closure of work orders and reduce the need for follow-up by the Traffic Engineer.
GIS Mapping	Provide GIS accounts and update access for the Engineering Department to facilitate timely updates. Develop a Progress Tracking sheet for the Engineering and IT Departments to jointly monitor the status of GIS map update requests. Grant the Engineering Department access to update GIS files directly.
Utility Permit Cuts	Establish a notification system that allows immediate interaction with third-party utility companies to ensure the City is informed before work begins. Equip the Utility Coordinator with a portable device that can access GIS in real time. This will streamline the process by allowing for immediate and accurate recording of utility permit cut locations during initial inspections.
Sanitary Flow Blockage or Backup Response	As the Central Square system is implemented, information can be input into the asset management system directly.

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Recommended Position Changes

- Fleet Manager (+1 FTE)
- Engineering Manager (+1 FTE)
- Crew Leads (+0 FTE)
- Facilities Manager (+1 FTE)
- Management Analyst (+1 FTE)
- GIS Specialist (+1 FTE)

Long Term vs Short Term Strategies

Short Term

- Central Square EAM implementation
- APWA Accreditation
- Formalize Crew Lead Position
- Hire a Management Analyst
- Increase mobile field technology usage

Long Term

- Organizational and structural alignment as recommended in this report
- Succession and workforce development planning
- Process improvement recommendations


Questions?